

Technical Data Sheet

Purified Rat Anti-Human CD124

Product Information

Material Number:	552472
Alternate Name:	IL-4 Receptor α chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	hIL4R-M10.1
Isotype:	Rat IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The soluble human IL-4 receptor, also known as sCD124, is a 140-kDa multimeric membrane glycoprotein that binds IL-4 with high affinity. Although many cell types are able to produce soluble IL-4R at low levels, its production is significantly up-regulated in vitro by T cell activation and IL-4. Cytokines secreted by Th2 cells were found to significantly up-regulate soluble IL-4R production following antigenic stimulation. Studies have indicated that the production of sIL-4R in vivo is closely associated with the secretion of IL-4, and are consistent with reports indicating that sIL-4R are involved in the regulation of IL-4 activity during immune response.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4°C.

Application Notes

Application

ELISA Capture	Routinely Tested
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Recommended Assay Procedure:

ELISA Capture: Purified hIL4R-M10.1 anti-human IL-4R antibody (Cat. No. 552472) is useful as a capture antibody for a sandwich ELISA which measures human IL-4R protein levels. Purified hIL4R-M10.1 anti-human IL-4R antibody can be paired with biotinylated hIL4R-M.8.2.2 anti-human IL-4R (Cat. No. 552473) as the detection antibody, with recombinant soluble human IL-4R as the standard. This capture antibody should be titrated between 1 - 4 $\mu\text{g/ml}$ to determine the optimal coating concentration for ELISA. To obtain linear standard curves, doubling dilutions of recombinant human IL-4R ranging from 2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, see BD Pharmingen's Immune Function Handbook, at <http://www.bdbiosciences.com/pdfs/manuals/02-8100055-21B.pdf>.

Note: This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: IL-1RI, IL-1RII, IL-1 α , IL-1 β , IL-2, IL-2sR- α , IL-3, IL-4, IL-5, IL-6, IL-6R gp130, IL-7, IL-8, IL-10, IL-12 p40, IL-12 p70, IL-13, IL-15, TNF- α , TNF- β , sTNFR1, sTNFR2, GM-CSF, TGF β , IFN γ , CD40L, TRAIL, FasL.

Suggested Companion Products

Catalog Number	Name	Size	Clone
552473	Biotin Rat Anti-Human CD124	0.5 mg	hIL4R-M8.2.2

Product Notices

- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

- Chomarat P, Banchereau J. An update on interleukin-4 and its receptor. *Eur Cytokine Netw.* 1997; 8(4):333-344.(Biology)
- Fernandez-Botran R, Chilton PM, Ma Y, Windsor JL, Street NE. Control of the production of soluble interleukin-4 receptors: implications in immunoregulation. *J Leukoc Biol.* 1996; 59(4):499-504.(Biology)
- Jacobs CA, Lynch DH, Roux ER, et al. Characterization and pharmacokinetic parameters of recombinant soluble interleukin-4 receptor. *Blood.* 1991; 77(11):2396-2403.(Biology)

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